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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,933	02/27/2002	Mark Yarkosky	1528	8341

28005 7590 07/27/2006

SPRINT
6391 SPRINT PARKWAY
KSOPHT0101-Z2100
OVERLAND PARK, KS 66251-2100

EXAMINER	
AMINZAY, SHAIMA Q	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,933	YARKOSKY ET AL.	
	Examiner	Art Unit	
	Shaima Q. Aminzay	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5,6,9-12,15,16,19-24 and 26-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,3,5,6,9-12,15,16 and 19* is/are allowed.

6)☒ Claim(s) *20-24 and 26-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Note: This office action has been restructured for clarity. Examiner did not change the ground of rejection; but has changed the argument of the rejection for clarity. The references Sadlre (Sadler, U. S. No. Patent No. 6058,319) in view of Neaves (Neaves et al., U. S. Publication No. 2004/0204,042) teach the limitations of the claims, and the Examiner shows (rejection above) that the references are related to the claimed limitations.

Response to Arguments

Applicant's arguments filed June 12, 2006 have been fully considered.

1. Arguments with respect to claims 1, 3, 5, 6, 9-12,15,16 and 19 is moot in view of indicating that they are allowable subject matter as the amendment to the independent claims 1 and 11 meet the requirements, therefore the rejection with respect to claims 1, 3, 5, 6, 9-12,15,16 and 19 under 35 U.S.C.103(a) Rejection is withdrawn.

2. Applicant's arguments with respect to claims 20-24 and 26-27 under 35 U.S.C.103(a) Rejection has been fully considered, but they are not persuasive.

The applicant's argued features in the claims, i.e., providing a "method of optimizing transmission of wireless signals to a receiver in a CDMA distributed

antenna system comprising the steps of: providing a plurality of antennas, wherein the plurality of antennas are configured to transmit a wireless signal; selecting one of the plurality of antennas to transmit the wireless signal to the receiver base on geographic proximity of the one of the plurality of antennas to the receiver by: maintaining data relating to a proximity to the receiver for each one of the plurality of antennas; and selecting one of the plurality of antennas having the closest proximity to the receiver; transmitting the wireless signal to the receiver using the selected one of the plurality of antennas; and disabling unselected ones of the plurality of antennas from transmitting to the receiver" to be established read upon Rudrapatna (Rudrapatna U. S. Publication 2002,0132,600) in view of Smith (Smith et al. U. S. Patent 6006075). Examiner respectfully disagrees. As discussed in the rejected bellow, Rudrapatna discloses *the reception of signals in a distributed antenna system with improved quality (optimized) in a CDMA system providing plurality of antennas, the antennas are configured to transmit wireless signals, the antenna selection based on the signal characteristics such as frequency content that is based on the location of antenna and it's reception strength that is dictated by location and time, the antenna selection based on the signal characteristics such as frequency content (based on location of antenna to receiver), time slot, and further, considering the strength of the received signal to continue receiving strong signal; transmitting the mobile (wireless) signal to the selected receiver and antennas, the unselected (disabled) antennas can not transmit to the receiver.*

Rudrapatna does not specifically teach selecting one antenna and the geographic proximity, however, Rudrapatna teaches identifying one pair of the plurality of antennas and transmit based on the signal frequency and time that is directly related to the location of the, *antenna selection based on the transmit signal characteristics such as frequency content based on the location of the receiver (frequency is function of time and geographical distance).* In a related art dealing with plurality of antennas transmitting mobile (wireless) signals, Smith teaches selecting one antenna and the geographic proximity, *selection of an antenna and transmission based on the location (geographic proximity) of reception.*

Rudrapatna and Smith are both analogous to the applicants teaching, that's why they do obviate. Therefore, the rejection is maintained.

3. Applicant's arguments with respect to claims 28-29 under 35 U.S.C.103(a) Rejection has been fully considered, but they are not persuasive.

The applicant's argued features in the claims, i.e., providing a "pathway manager comprising in combination: a processor; an antenna database coupled to the processor, the antenna database containing information of each antenna within a plurality of antennas of an antenna system, wherein the information is

stored in the antenna database in categories based on whether the antenna has successfully transmitted wireless signals in the past; a data storage medium coupled to the processor; an interface coupled to the processor, the antenna database, and the data storage medium, the interface configured to communicate with the plurality of antenna; and a set of machine language instructions stored in the data storage medium executable by the processor in response to a request from a base transceiver station (BTS) to perform functions including: accessing the antenna database to determine selection characteristics of the plurality of antennas including whether the antenna have successfully transmitted wireless signals in the past and; identifying one of the plurality of antennas to transmit a wireless signal to a receiver based on geographic proximity of the one of the plurality of antennas to the receiver and based on past performances of the plurality of antennas" to be established read upon Smith (Smith et al. U. S. Patent 6006075) in view of Bergel (Bergel U. S. Publication 2003/0017,835). Examiner respectfully disagrees. As discussed in the rejected bellow, Smith discloses *the controller (32) with memory (46) manages the transmission paths (path manager)), controller (32), memory device (46) and RF switch (24), Info Signal Source (14), and the antenna database connected to the processor, the database containing information, the memory stores information (data storage medium) coupled to the processor, and transmitted signal characteristics and information stored in the memory (includes failure and successful transmission), interface and memory are connected to the processor,*

the RF Switch (interface) the memory and RF Switch connected to the controller to communicate with the antennas; the communication information is being stored in memory (storage) and the controller produce instructions to perform downlink (from the base transceiver) communication, the memory and the RF Switch connected to the controller perform downlink (from the base transceiver) communication based on the stored information relating to the selected antennas, the memory stores information (data storage medium) coupled to the processor, and transmitted signal characteristics and information stored in the memory (the past failure and successful transmission is stored), selection of a antenna and transmission based on the location (geographic proximity) and the selection characteristics (past performance). Smith does not specifically teach a set of machine language instructions, however, Smith teaches the communication information is being stored in memory device (46), and the controller (32), produce instructions to perform downlink. In related art dealing with mobile communication path control, Bergel teaches a set of machine language instructions

Smith and Bergel are both analogous to the applicants teaching, that's why they do obviate. Therefore, the rejection is maintained.

4. Applicant's arguments with respect to claim 30 under 35 U.S.C.103(a) Rejection has been fully considered, but they are not persuasive.

The applicant's argued features in the claims, i.e., providing a "pathway manager comprising in combination: a processor; an antenna database coupled to the processor, the antenna database containing information of each antenna within a plurality of antennas of an antenna system, wherein the information is stored in the antenna database in categories based on whether the antenna has successfully transmitted wireless signals in the past; a data storage medium coupled to the processor; an interface coupled to the processor, the antenna database, and the data storage medium, the interface configured to communicate with the plurality of antenna; and a set of machine language instructions stored in the data storage medium executable by the processor in response to a request from a base transceiver station (BTS) to perform functions including: accessing the antenna database to determine selection characteristics of the plurality of antennas including whether the antenna have successfully transmitted wireless signals in the past and; identifying one of the plurality of antennas to transmit a wireless signal to a receiver based on geographic proximity of the one of the plurality of antennas to the receiver and based on past performances of the plurality of antennas", and "wherein the interface is selected from the group consisting of a transmitter, a coaxial cable, an Ethernet cable, and a T1 line" to be established read upon Smith (Smith et al. U. S. Patent 6006075)

in view of Bergel (Bergel U. S. Publication 2003/0017,835), and further in view of Kavak (Kavak et al. U. S. Publication 2003/0114,193).. Examiner respectfully disagrees. As discussed in the rejected bellow, Smith discloses *the controller (32) with memory (46) manages the transmission paths (path manager)), controller (32), memory device (46) and RF switch (24), Info Signal Source (14), and the antenna database connected to the processor, the database containing information, the memory stores information (data storage medium) coupled to the processor, and transmitted signal characteristics and information stored in the memory (includes failure and successful transmission), interface and memory are connected to the processor, the RF Switch (interface) the memory and RF Switch connected to the controller to communicate with the antennas; the communication information is being stored in memory (storage) and the controller produce instructions to perform downlink (from the base transceiver) communication, the memory and the RF Switch connected to the controller perform downlink (from the base transceiver) communication based on the stored information relating to the selected antennas, the memory stores information (data storage medium) coupled to the processor, and transmitted signal characteristics and information stored in the memory (the past failure and successful transmission is stored), selection of a antenna and transmission based on the location (geographic proximity) and the selection characteristics (past performance).* Smith does not specifically teach a set of machine language instructions, however, Smith teaches the communication information is being

stored in memory device (46), and the controller (32), produce instructions to perform downlink. In related art dealing with mobile communication path control, Bergel teaches a set of machine language instructions. Smith in view of Berge does not specifically teach a coaxial cable, an Ethernet cable, and a T1 line. In related art dealing with mobile communication path control, Kavak teaches a coaxial cable, an Ethernet cable, and a T1 line.

Smith, Bergel, and Kavak are analogous to the applicants teaching, that's why they do obviate. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 20-27 are rejected under 35 U.S.C.103(a) as being unpatentable over Rudrapatna (Rudrapatna U. S. Publication 2002,0132,600) in view of Smith (Smith et al. U. S. Patent 6006075).

Regarding claim 20, Rudrapatna discloses a method of optimizing transmission of wireless signals to a receiver in a CDMA distributed antenna system *(see for example, paragraph [0002], lines 1-4, [0004], lines 1-12, [005], lines1-12, and [0027], lines 1-8, the reception of signals in a distributed antenna system with improved quality (optimized) in a CDMA system)* comprising the steps of: providing a plurality of antennas *(see for example, paragraph [0031], lines 5-8, and [0032], lines 5-25, providing plurality of antennas)*, where the plurality of antennas are configured to transmit a wireless signal *(see for example, paragraph [004], lines 1-4, [005], lines1-12, [007], lines 1-9, [0031], lines 5-8, and [0032], lines 5-25, the antennas are configured to transmit wireless signals)*, selecting *[one]* of the plurality of antennas to transmit the wireless signal to the receiver based on *[geographic proximity]* of the *[one]* of the plurality of antennas to the receiver *(see for example, paragraph [004], lines 1-4, [005], lines1-12, [0007], lines1-9, [0024], lines 1-23, [0025], lines 1-8, lines 20-32, [0026], lines 1-15, [0030], lines 13-14, the antenna selection based on the signal characteristics such as frequency content that is based on the location of antenna and it's reception strength that is dictated by location and time)* by: maintaining data relating *[to a proximity]* to the receiver for each *[one]* of the plurality of antennas; and selecting one of the plurality of antennas having the closest *[proximity]* to the receiver *(see for example, paragraph [004], lines 1-4, [005], lines1-12, [0007], lines1-9, [0024], lines 1-23, [0025], lines 1-8, lines 20-32, [0026], lines 1-15, [0028], lines 1-6, [0030], lines 13-14, the antenna selection*

based on the signal characteristics such as frequency content (based on location of antenna to receiver), and time slot, and further, considering the strength of the received signal to continue receiving strong signal); transmitting the wireless signal to the receiver using the selected *[one]* of the plurality of antennas *(see for example, paragraph [004], lines 1-4, [005], lines1-12, [007], lines 1-9, [0031], lines 5-8, and [0032], lines 5-25, transmitting the mobile (wireless) signal to the selected receiver)*; and disabling unselected ones of the plurality of antennas from transmitting to the receiver *(see for example, [004], lines 1-4, [005], lines1-12, paragraph [0024], lines 1-23, [0025], lines 1-8, lines 20-32, [0026], lines 1-10, the unselected (disabled) antennas can not transmit to the receiver).*

Rudrapatna does not specifically teach selecting one antenna and the geographic proximity, however, Rudrapatna teaches identifying one pair of the plurality of antennas and transmit based on the signal frequency and time that is directly related to the location of the receiver *(see for example, paragraph [004], lines 1-4, [005], lines1-12, [0007], lines1-9, [0025], lines 1-8, lines 20-32, [0026], lines 1-15, [0030], lines 13-14, antenna selection based on the transmit signal characteristics such as frequency content based on the location of the receiver (frequency is function of time and geographical distance)).*

In a related art dealing with plurality of antennas transmitting mobile (wireless) signals *(see for example, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column 11, lines 1-9)*, Smith teaches selecting one antenna and the geographic proximity *(see for example, column 1, lines 42-45, lines 56-57, column 3, lines 1-*

6, column 5, lines 28-34, column 11, lines 1-9, selection of a antenna and transmission based on the location (geographic proximity) of reception).

It would have been obvious to one of ordinary skill in the art at the time invention was made to include Smith's one antenna selection into Rudrapatna's mobile communication system and plurality of transmission antennas to provide a CDMA communication system with greater transmission and signal diversity to overcome the effects of multi-path fading, and to improve the quality of communications system *(Smith, see for example, column 1, lines 41-45, column 4, line 28-35, and column 13, lines 39-40, and column 5, lines 28-34).*

Regarding claims 21 and 22, Rudrapatna in view of Smith teach all the claimed limitation as recited in claim 20, and further, Smith teaches measuring a signal strength of a communication link to the receiver for each one of the plurality of antennas and selecting one of the plurality of antennas having the highest measured signal strength (see for example, column 7, lines 19-29, the communication formed based on signal strength and established distance, Figures 7-8, and detailed information, column 12, lines 9-67 continues to column 13, lines1-16), and measuring a signal strength of a reverse link from the receiver to each one of the plurality of antennas (see for example, column 7, lines 19-29, the communication formed based on signal strength and established distance, Figures 7-8, and detailed information, column 12, lines 9-67 continues to column 13, lines1-16).

Regarding claim 23, Rudrapatna in view of Smith teach all the claimed limitation as recited in claim 20, and further, Smith teaches measuring a signal strength of a communication link to the receiver for each one of the plurality of antennas further comprises measuring a signal strength of a communication signal from each one of the plurality of antennas to the receiver (see for example, column 7, lines 19-29, the communication formed based on signal strength and established distance, Figures 7-8, and detailed information, column 12, lines 9-67 continues to column 13, lines1-16),

Regarding claim 24, Rudrapatna in view of Smith teach all the claimed limitation as recited in claim 20, and further, Smith maintaining data relating to reliability of transmissions to the receiver for each one of the plurality of antennas and selecting one of the plurality of antennas having the highest level of reliability (see for example, column 10, lines 36-46, data is stored in memory 46 and selected one of the plurality of antennas).

Regarding claim 26, Rudrapatna in view of Smith teach all the claimed limitation as recited in claim 20, and further, Smith teaches maintaining data relating to a proximity to the receiver for each one of the plurality of antennas; and selecting one of the plurality of antennas having the closest proximity to the receiver (see for example, column 5, lines 28-40, and Figures 7-8, and detailed

information, column 12, lines 9-67 continues to column 13, lines1-16, selecting an antenna based on proximity to the receiver), and maintaining data relating to interference between each one of the plurality of antennas and the receiver (see for example, column 5, lines 28-40, and Figures 7-8, and detailed information, column 12, lines 9-67 continues to column 13, lines1-16).

Regarding claim 27, Rudrapatna in view of Smith teach all the claimed limitation as recited in claim 20, and further, Smith teaches wherein the steps of the method are performed in a device selected from the group consisting of a BTS, a DAS, and the receiver (see for example, Figure 4, column 9, lines 1-9, and column 10, lines 36-67, in Figures 4 controller 32, Receiver 38 (with antennas 44), and transmitter 88 (connected to antennas 26)).

6. Claims 28-29 are rejected under 35 U.S.C.103(a) as being unpatentable over Smith (Smith et al. U. S. Patent 6006075) in view of Bergel (Bergel U. S. Publication 2003/0017,835).

Regarding claim 28, Smith discloses a pathway manager *(see for example, Figures 4-6, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column 5, lines 28-34, column 7, lines 3-47, the controller (32) with memory (46) manages the transmission paths (path manager))* comprising in combination: processor *(see for example, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column*

5, lines 28-34, column 7, lines 3-47, controller (32)); an antenna database coupled to the processor *(see for example, Figures 4-6, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column 5, lines 28-34, column 7, lines 3-47, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), and the antenna database connected to the processor)*, the antenna database containing information of each antenna within a plurality of antennas of an antenna system *(see for example, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), column 7, lines 3-4, the database containing information)*, wherein the information is stored in the antenna database in categories based on whether the antenna has successfully transmitted wireless signals in the past; a data storage medium coupled to the processor *(see for example, (see for example, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column 5, lines 28-34, column 7, lines 3-47, column 11, lines 1-9, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), the memory stores information (data storage medium) coupled to the processor, and transmitted signal characteristics and information stored in the memory (includes failure and successful transmission))*; an interface coupled to the processor, the antenna database *(see for example, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), column 7, lines 3-47, column 10, lines 36-67 (downlink/uplink communication), column 11, lines 1-28, lines 39-67, column 12, lines 6-9, the RF Switch (interface), interface and memory are connected to the processor)*, and the data storage medium, the interface configured to

communicate with the plurality of antenna *(see for example, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), column 7, lines 3-47, column 10, lines 36-67 (downlink and uplink communication), column 11, lines 1-28, lines 39-67, column 12, lines 6-9, the RF Switch (interface) the memory and RF Switch connected to the controller to communicate with the antennas)*; and *[a set of machine language]* instructions stored in the data storage medium executable by the processor in response to a request from a base transceiver station (BTS) to perform functions including *(see for example, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), column 7, lines 3-47, column 10, lines 36-67 (downlink and uplink communication), column 11, lines 1-28, lines 39-67, column 12, lines 6-9, the communication information is being stored in memory (storage) and the controller produce instructions to perform downlink (from the base transceiver) communication)*: accessing the antenna database to determine selection characteristics of the plurality of antennas and *(see for example, column 7, lines 3-47, lines 65-67 continued to column 8, lines 1-10, column 10, lines 36-67 (downlink and uplink communication), column 11, lines 1-28, lines 39-67, column 12, lines 6-9, the RF Switch (interface), controller (32), memory device (46) and RF switch (24), Info Signal Source (14), the memory and the RF Switch connected to the controller perform downlink (from the base transceiver) communication based on the stored information relating to the selected antennas)* including whether the antenna have successfully transmitted wireless

signals in the past *(see for example, (see for example, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column 5, lines 28-34, column 7, lines 3-47, , lines 65-67 continued to column 8, lines 1-10, column 10, lines 36-67 (downlink and uplink communication), column 11, lines 1-9, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), the memory stores information (data storage medium) coupled to the processor, and transmitted signal characteristics and information stored in the memory (the past failure and successful transmission is stored))*; and identifying one of the plurality of antennas to transmit a wireless signal to a receiver based on geographic proximity of the one of the plurality of antennas to the receiver and based on past performances of the plurality of antennas *(see for example, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column 5, lines 28-34, column 7, lines 3-47, , lines 65-67 continued to column 8, lines 1-10, column 10, lines 36-67 (downlink and uplink communication), column 11, lines 1-9, selection of a antenna and transmission based on the location (geographic proximity) and the selection characteristics (past performance))*.

Smith does not specifically teach a set of machine language instructions, however, Smith teaches the communication information is being stored in memory (storage) and the controller produce instructions to perform downlink (from the base transceiver) communication *(see for example, controller (32), memory device (46) and RF switch (24), Info Signal Source (14), column 7, lines 3-47, column 10, lines 36-67 (downlink and uplink communication), column 11,*

lines 1-28, lines 39-67, column 12, lines 6-9).

In related art dealing with mobile communication path control *(see for example, Figures 1-2, paragraph [0001], lines 1-4, [0002], lines 1-6),* Bergel teaches a set of machine language instructions *(see for example, Figures 1-2, paragraph [0001], lines 1-4, [0002], lines 1-6, [0062], lines 1-18)*

It would have been obvious to one of ordinary skill in the art at the time invention was made to include Bergel's a set of machine language instructions into Smith wireless base station controller to provide an improved mobile communication between the base station and the mobile user *(Bergel, see for example, paragraph [0010], lines 8-10).*

Regarding claim 29, Smith in view Bergel teach all the claimed limitation as recited in claim 28, and further, Smith teaches wherein the selection characteristics are selected from the group consisting of availability of use, reliability of receiving the wireless signal, and expected transmission signal strength *(see for example, column 1, lines 42-45, lines 56-57, column 3, lines 1-6, column 5, lines 28-34, column 7, lines 3-47, column 10, lines 36-67 (downlink and uplink communication), column 11, lines 1-28, lines 39-67, column 12, lines 6-9, column 13, lines 17-40).*

7. Claim 30 is rejected under 35 U.S.C.103(a) as being unpatentable over Smith (Smith et al. U. S. Patent 6006075) in view of Bergel (Bergel U. S. Publication

2003/0017,835), and further in view of Kavak (Kavak et al. U. S. Publication 2003/0114,193).

Regarding claim 30, Smith in view Bergel teach all the claimed limitation as recited in claim 28, and further, Smith teaches wherein the interface is selected from the group consisting of a transmitter. However, Smith in view of Berge does not teach a coaxial cable, an Ethernet cable, and a T1 line. In related art dealing with mobile communication path control *(see for example, paragraph [0001], lines 1-5, [0017], lines 1-4),* Kavak teaches a coaxial cable, an Ethernet cable, and a T1 line *(see for example, paragraph [0034], lines 10-18).*

It would have been obvious to one of ordinary skill in the art at the time invention was made to include Kavak's Ethernet cable connection with Bergel and Smith wireless base station *controller to provide* an improved mobile communication between the base station and the mobile user *(Bergel, see for example, paragraph [0010], lines 8-10)*, and to extend the capability of transferring signals to the internet and other data networks *(Kavak, see for example, paragraph [0034], lines 2-3).*

Allowable Subject Matter

8. Claims 1, 3, 5, 6, 9-12, 15, 16, and 19 are allowed.

The prior art specifically Rudrapatna and Smith failed to render obviousness in combination or individually and failed to anticipate individually the following underlined limitations:

"A method for transmitting wireless signals in a CDMA distributed antenna system, the method comprising the steps of: providing a plurality of antennas, where each antenna is configured to transmit a wireless signal to a receiver; identifying one of the plurality of antennas to transmit the wireless signal to the receiver by selecting the one of the plurality of antennas based on geographic proximity to the receiver, wherein selecting the one of the plurality of antennas based on geographic proximity to the receiver includes (i) calculating a distance between each one of the plurality of antennas and the receiver thereby establishing a set of distances, and (ii) selecting one of the plurality of antennas corresponding to the smallest distance among the set of distances; and transmitting the wireless signal by the one of the plurality of antennas to the receiver." as disclosed in claim1.

"A CDMA distributed antenna system comprising in combination: a plurality of antennas, where each antenna is configured to transmit a wireless signal; a

pathway manager coupled to the plurality of antennas, the pathway manager configured to identify one of the plurality of antennas to transmit the wireless signal by selecting the one of the plurality of antennas based on a geographic proximity to the receiver; wherein the pathway manager identifies the one of the plurality of antennas by calculating a distance between each antenna and the receiver thereby establishing a set of distances and selecting the one of the plurality of antennas corresponding to the smallest distance among the set of distances; and a receiver configured to receive the wireless signal transmitted by the one of the plurality of antennas." as disclosed in claim 11.

For these reasons, dependent claims 1 and 11 are allowable. Claims 3, 5-6, 9-10 are depend of the independent claim 1, claims 12, 15-16, 19 are dependent of the independent claim 11 are allowable under the same reasons set forth in claims 1 and 11.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 571-272-7874. The examiner can normally be reached on 7:00 AM -5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/24/06

QUOCHIEN B. VUONG
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Nay A. Maung
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July 16, 2006